By Facsimile
Attorney Docket No. 197-008-USP

Amendments to the Specification

Please replace the one line paragraph at page 8, line 2 as follows:

~~$R_{km} = (1/\sqrt{6}) \parallel exp[i\,(k-1)\,(m-1)\,\pi/3] \parallel,\ (k, m = 1,2 \ldots 6)$~~

$R_{km} = (1/6) \parallel exp[i\,(k-1)\,(m-1)\,\pi/3] \parallel,\ (k, m = 1,2 \ldots 6)$

Please replace the one line paragraph at page 8, line 10 as follows:

~~$R = [1/(2\sqrt{6})]\,P + i\,[1/(2\sqrt{2})]\,Q$~~

$R = [1/(26)]\,P + i\,[1/(22)]\,Q$

Please replace the one line paragraph at page 8, line 18 as follows:

~~$Q_{km} = (2/\sqrt{3}) \parallel sin[\,(k-1)\,(m-1)\,\pi/3] \parallel,\ (k, m = 1,2 \ldots 6)$~~

$Q_{km} = (2/3) \parallel sin[\,(k-1)\,(m-1)\,\pi/3] \parallel,\ (k, m = 1,2 \ldots 6)$

Please replace the one line paragraph at page 9, line 5 as follows:

~~$\text{Real}(c_k) = (0.5/\sqrt{6})\,(P_{k1}B_1 + P_{k2}B_2 + P_{k3}B_3 + P_{k4}B_4 + P_{k5}B_5 + P_{k6}B_6)$~~

$\text{Real}(c_k) = (0.5/6)\,(P_{k1}B_1 + P_{k2}B_2 + P_{k3}B_3 + P_{k4}B_4 + P_{k5}B_5 + P_{k6}B_6)$

Please replace the one line paragraph at page 9, line 6 as follows:

~~$\text{Imaginary}(c_k) = (0.5/\sqrt{2})\,(Q_{k1}B_1 + Q_{k2}B_2 + Q_{k3}B_3 + Q_{k4}B_4 + Q_{k5}B_5 + Q_{k6}B_6)$~~

$\text{Imaginary}(c_k) = (0.5/2)\,(Q_{k1}B_1 + Q_{k2}B_2 + Q_{k3}B_3 + Q_{k4}B_4 + Q_{k5}B_5 + Q_{k6}B_6)$

Please replace the one line paragraph at page 9, line 10 as follows:

~~$c_1 = (1/\sqrt{6})\,(B_1 + B_2 + B_3 + B_4 + B_5 + B_6)$~~

$c_1 = (1/6)\,(B_1 + B_2 + B_3 + B_4 + B_5 + B_6)$

Please replace the one line paragraph at page 9, line 11 as follows:

~~$c_2 = (0.5/\sqrt{6})\,(2B_1 + B_2 - B_3 - 2B_4 - B_5 + B_6) + i\,(0.5/\sqrt{2})\,(B_2 + B_3 - B_5 - B_6)$~~

$c_2 = (0.5/6)\,(2B_1 + B_2 - B_3 - 2B_4 - B_5 + B_6) + i\,(0.5/2)\,(B_2 + B_3 - B_5 - B_6)$

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Please replace the one line paragraph at page 9, line 12 as follows:

~~$c_3 = (0.5/\sqrt{6})\,(2B_1 - B_2 - B_3 + 2B_4 - B_5 - B_6) + i\,(0.5/\sqrt{2})\,(B_2 - B_3 + B_5 - B_6)$~~

$c_3 = (0.5/6)\,(2B_1 - B_2 - B_3 + 2B_4 - B_5 - B_6) + i\,(0.5/2)\,(B_2 - B_3 + B_5 - B_6)$

Please replace the one line paragraph at page 9, line 13 as follows:

~~$c_4 = (1/\sqrt{6})\,(B_1 - B_2 + B_3 - B_4 + B_5 - B_6)$~~

$c_4 = (1/6)\,(B_1 - B_2 + B_3 - B_4 + B_5 - B_6)$

Please replace the one line paragraph at page 9, line 14 as follows:

~~$c_5 = (0.5/\sqrt{6})\,(2B_1 - B_2 - B_3 + 2B_4 - B_5 - B_6) - i\,(0.5/\sqrt{2})\,(B_2 - B_3 + B_5 - B_6)$~~

$c_5 = (0.5/6)\,(2B_1 - B_2 - B_3 + 2B_4 - B_5 - B_6) - i\,(0.5/2)\,(B_2 - B_3 + B_5 - B_6)$

Please replace the one line paragraph at page 9, line 15 as follows:

~~$c_6 = (0.5/\sqrt{6})\,(2B_1 + B_2 - B_3 - 2B_4 - B_5 + B_6) - i\,(0.5/\sqrt{2})\,(B_2 + B_3 - B_5 - B_6)$~~

$c_6 = (0.5/6)\,(2B_1 + B_2 - B_3 - 2B_4 - B_5 + B_6) - i\,(0.5/2)\,(B_2 + B_3 - B_5 - B_6)$

Please replace the paragraph at page 15, lines 7-13 as follows:

The c_3 coefficient responds to lines that are both dark and light with respect to the background upon which they lie and by default both types of lines are detected. However, it is also possible to selectively detect only light lines or only dark lines. This may be achieved in various ways. For example, the mean brightness or channel value at the quasipixels lying closest to the line may be compared to the value of $c_1/6$ [[$c_1/\sqrt{6}$]]. Alternatively, the lightness or darkness of a line may be estimated from the real and imaginary parts of the c_3 coefficient by comparison to thresholds T_1 and T_2 according to the following logic:

Please replace the paragraph at page 18, lines 9-18 with the following paragraph:

Example 11 (Figure 28) presents some shapes on a 50% gray background, magnified six-fold for clarity. The image was processed with the hexon of Example 5 having 10 pixel by 10 pixel quasipixels with restriction of responses according to $|c_2| <$

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$0.39|c_k|_{max}$, $|c_3| < 0.39|c_k|_{max}$, $|c_4| < 0.39|c_k|_{max}$ and $|B_0 - c_1/6| > 0.21B_{max}$ ~~$|B_0 - e_1/\sqrt{6}| > 0.21B_{max}$~~, where $|c_k|_{max}$ is the largest value of $|c_k|$ anywhere in the image and B_{max} is the maximum brightness of the image. In this example both of these values are 255. When all of $|c_2|$, $|c_3|$, $|c_4|$, $|c_5|$ and $|c_6|$ are small and $|B_0 - c_1/6|$ ~~$|B_0 - e_1/\sqrt{6}|$~~ is large, then $|B_0 - c_1/6|$ ~~$|B_0 - e_1/\sqrt{6}|$~~ responds to a disk-like or ring-like forms. The locations of this response are shown in Figure 28 in white for black shapes and in black for white shapes centered in the shapes. The responses demonstrate that disks and rings can be detected. Two disks are too large to detect with the hexon used and two rings are too thin to detect with this hexon.

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